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# RIte Stats

## Analysis of RIte Care Utilization Data

**Rhode Island Department of Human Services**
**Center for Child and Family Health**

## Director's Message

This issue of RIte Stats looks at utilization of mental health and substance abuse services among RIte Care members from State Fiscal Year (SFY) 1998 through 2001.

Tracking mental health and substance abuse services in RIte Care is an extremely important component of our continuous quality assurance initiative for a number of reasons. First, there remains concern within the local professional community about the capacity of mental health and substance abuse resources in Rhode Island to meet the needs of the RIte Care population. Furthermore, studies have shown that there are greater needs for mental health and substance abuse services within a Medicaid population [1-2] and it is therefore important to focus our oversight and monitoring activities on this very important area of service.

Best regards,

Jane A. Hayward, Director
Department of Human Services

## Background

The RIte Care population consists predominantly of women of childbearing age and their children. It is important to assure access to health services that are appropriate to the various needs of this particular population. For example, studies indicate that adolescent girls are more prone to major depression [3] while younger children may be more likely to present with behavioral or attention problems. [4] In addition, adults are more likely to require treatment for minor depressive symptoms and substance abuse problems, [5] and postpartum depression is always a concern in programs providing prenatal care to a large segment of their population. [6]

This issue of RIte Stats is intended to provide a broad overview of the non-pharmaceutical behavioral health services provided in RIte Care. Utilization is examined by site of service (inpatient vs. outpatient), treatment category (mental health vs. substance abuse) and, where appropriate, stratified by age, gender and source of payment (in-plan vs. out-of-plan). Finally, we consider treatment costs and close with recommendations for further follow-up. Future issues of RIte Stats will focus on utilization and cost of pharmaceuticals for mental health and substance abuse.

## Inpatient Admissions

Quarterly trends in inpatient admissions for mental health and substance abuse diagnoses are shown in Figure 1 for State Fiscal Year (SFY) 1998 through 2001. The inpatient admissions rates for mental health diagnoses have varied between 6 and 8 per 1,000 since second quarter SFY 1999. Substance abuse diagnoses (combining both alcohol and drug abuse) have hovered around 4 per 1,000 and appear to be declining to slightly over 2.0 per 1,000 members in recent quarters. These rates are somewhat lower, but reasonably comparable, to national rates that average a combined (mental health, alcohol and drug abuse) admission rate of about 12 - 14 per 1,000. [7] It should be noted that the national rates include populations such as the elderly, disabled, and adult males who may have different utilization patterns for inpatient mental health and substance abuse services than the RIte Care population as a whole.

Almost 75% of the inpatient admissions for substance abuse in RIte Care have drug abuse as the primary diagnosis while, nationally, the rate is just over 50%. [8] While this may suggest that drug abuse is more common in RIte Care than it is nationally, it may also be a cohort (or case-mix) effect. Males, between the ages of 25 and 44, are the population most likely to be hospitalized for alcohol abuse [9] and are significantly under-represented in the RIte Care population. Admission rates for drug abuse other than alcohol (especially abuse of opiates and cocaine) are more comparable between genders. [9]

Another important element among patients admitted for substance abuse is the percent that are dually diagnosed (i.e., admitted for more than one substance of abuse or a substance and a mental health diagnosis). Nationally, about 43% of those hospitalized with alcohol abuse as the primary diagnosis were also treated for abuse of another substance. [9] Polydrug abuse (including alcohol) is much more common among patients admitted for drugs other than alcohol.
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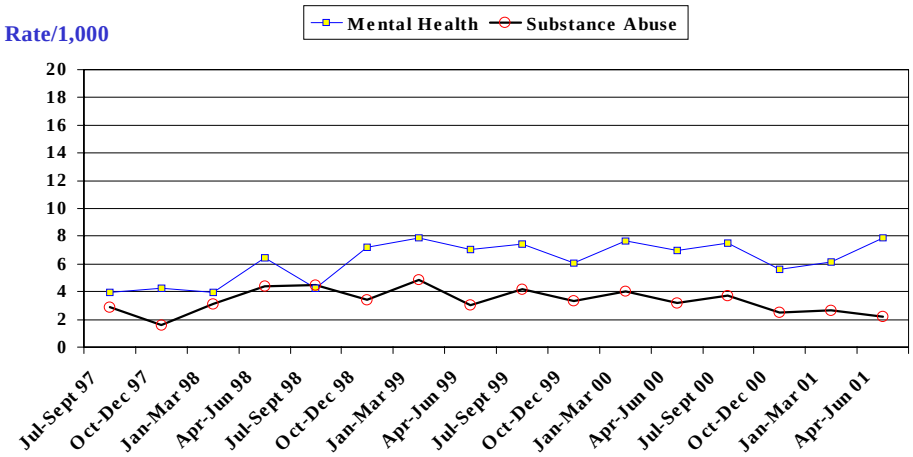
**Figure 1. Inpatient Admission Rate per 1,000 Members for Mental Health and Substance Abuse by Quarter (SFY 1998 thru 2001)**




Note: Quarterly rates have been annualized by multiplying by 4.
Substance Abuse includes both alcohol and drug abuse.
Average length of stay overall was 4.7 days, 2.8 for alcohol abuse, 3.4 for drug abuse, and 5.3 for mental health.

Average length of stay varies considerably by diagnosis (see Notes in Figure 1). Admissions with a primary diagnosis of alcohol abuse averaged just under 3 days per admission (2.8 days) while admissions for other drug abuse averaged 3.4 days. Admissions for mental health diagnoses (excluding drug abuse) averaged 5.3 days per admission. There was also considerably more variation in length of stay among mental health admissions than in either the alcohol or drug abuse categories. Length of stay for mental health admissions ranged from 1 to 30 days while substance abuse admissions only varied within a couple of days around the mean. The most prevalent diagnosis for mental health admissions in this population was for depressive disorders.

A third category of care (data not shown) is for residential or day/night treatment. Admissions for this type of treatment occur at an annual rate of about 7.0 per 1,000. About 71% of the residential services were provided primarily for treatment of mental health diagnoses while 11% were for alcohol abuse and 18% are for drug abuse. Utilization of these services has been increasing in recent quarters, which may explain the decline in inpatient

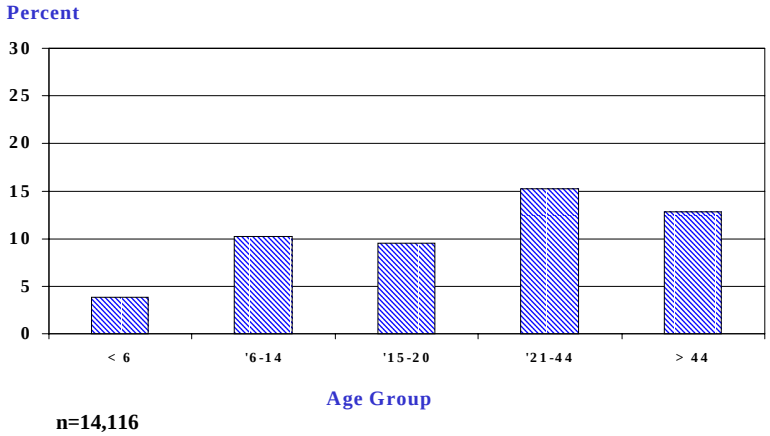
services for substance abuse noted earlier. Focused studies have found encouraging evidence on the efficacy of residential treatment compared to inpatient services when adjusting for severity of illness. [10]

## Outpatient Services

National surveys estimate that approximately 20% of the general population meet diagnostic criteria for mental health or substance abuse diagnoses while only about 15% actually get some kind (inpatient or outpatient) of treatment. [1] Studies have shown that utilization rates increase steadily with age for both males and females up to about age 20 and then level off at around 15%. [11]

Utilization in RIte Care varies considerably with age (see Figure 2). Less than 5% of the children under 6 have received any kind of outpatient treatment while the rates in the 6-20 age groups are closer to 10%. A little more than 15% of the adult population 21-44 receive mental health and substance abuse services as do about 13% of the 45 and older group.

**Figure 2: Percent of RIte Care Population using any Outpatient Mental Health or Substance Abuse Service by Age Group. (SFY 2001)**




**n=14,116**

Average number of services per patient for mental health and substance abuse also varied considerably with age (data not shown). Children and teens under 15 who had been treated for a mental health or substance abuse diagnosis received about 4.5 services per year while teens between 15 and 20 received an average of 5.3 services. Adults, on the other hand, averaged over 8.0 services per year. Overall, outpatient mental health and substance abuse services have been increasing in RIte Care since SFY 1999 not only in absolute volume but also as a rate of the population enrolled.

There were a total of 598 RIte Care members enrolled in methadone maintenance programs at some time during SFY 2001 (< 1% of the RIte Care population, data not shown), the vast majority of whom were between 20-39 years of age. Rates were similar for males and females. The average duration of treatment among patients enrolled at some time during SFY 2001 was 8.24 months with an average number of 33.7 treatments per patient. Treatments are usually billed on a weekly basis with the assumption that patients enrolled during one month should (all things considered) be enrolled during subsequent months as long as they are still members of the program. As such, these rates of utilization and duration of care are fairly consistent with a group of patients in predominant compliance with a chronic treatment regimen. In addition, there were a total of 23 RIte Care members identified as enrolled in both prenatal care and methadone maintenance.

While tracking methadone maintenance services is important, these data suggest there may be a need to take a closer look at outpatient treatment of alcohol and other drug abuse. Given that 70% of the outpatient substance abuse services provided were for methadone maintenance for 598 members, there may be underutilization of outpatient services for alcohol and other drug abuse.

## Out-of-Plan Services

Some behavioral health services are provided as an out-of-plan benefit for children enrolled in RIte Care who are designated Seriously Emotionally Disturbed (SED) or adults enrolled in RIte Care who are designated Seriously and Persistently Mentally Ill (SPMI). In addition, there are certain services classified as Children's Intensive Services (CIS) that are also provided as an out-of-plan benefit to any child enrolled in RIte Care who needs them. The CIS program is administered by DCYF to provide necessary support and treatment to children and families in order to prevent long-term residential or psychiatric hospital care. (Note: out-of-plan services simply means that the Medicaid program pays for the service on a fee-for-service basis and that the health plans are not required to pay for the service out of their capitation payment). Overall, this constitutes a costly array of services for a small group of members.

Table 1 illustrates these services by category and service delivery setting (all CIS services are outpatient). Overall, the state paid $10.3 million for these services during SFY 2001. The vast majority (82.7%) in terms of both volume and cost were for CIS services to about 1,549 members receiving 8,103 services. The remaining 17.3% of the dollars (approximately $1.8 million) were for services provided to members classified as SED/SPMI, $982,008 for inpatient services and $791,255 for outpatient services. These services were provided to fewer than 200 members.

**Table 1. Out-of-Plan Mental Health Services by Treatment Category for RIte Care Enrollees. (SFY 2001)**

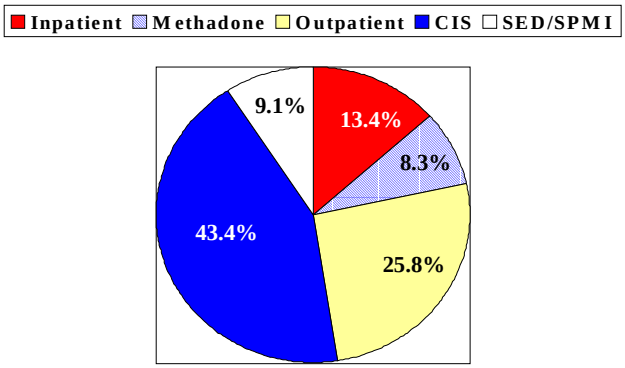
| Service Category | Members | Units of Service | Expenditures |
|---|---|---|---|
| SED/SPMI [1] | | | |
| Inpatient | 34 | 46 | $982,008 |
| Outpatient | 157 | 2,673 | $791,255 |
| | | | |
| CIS [2] | 1,549 | 8,103 | $8,482,727 |
| | | | |
| Total | | 10,822 | $10,255,990 |

1 SED=Seriously Emotionally Disturbed, SPMI=Seriously and Persistently Mentally Ill.
2 CIS=Children's Intensive Services Program.

## Expenditures

The distribution of non-pharmaceutical expenditures among the various treatment categories is shown in Figure 3. During SFY 2001, over $19.5 million was spent on mental health and substance abuse services for RIte Care members. The largest category of service was for CIS services which accounted for 43.4% (about $8.5 million) of the total mental health and substance abuse expenditure. SED/SPMI, the other out-of-plan services, accounted for about 9.1% of total expenditures. Among in-plan services, outpatient services constituted the largest share with 25.8%, followed by inpatient services (13.4%) and methadone maintenance (8.3%).

**Figure 3: Distribution of Mental Health and Substance Abuse Expenditures by Type of Service: (SFY 2001)**




**Note: Total expenditures, In-plan and Out-of-Plan for SFY 2001=$19,534,671**

The proportion of the expenditures spent on mental health and substance abuse services is often inversely proportional to the number of members treated in particular service categories. CIS services were provided to less than 10% of all patients receiving mental health and substance abuse services, but constituted 43.4% of expenditures. Furthermore, over 50% of the mental health and substance abuse services provided to RIte Care members were reimbursed as an out-of-plan benefit by the state and outside the Health Plans' capitation payment. Among the services provided directly by the Health Plans, methadone maintenance and other outpatient services constituted about one third of all behavioral health expenditures.

Overall, the mental health and substance abuse services provided through the RIte Care program represented about 8.3% of the total RIte Care budget of approximately $234 million. This translated to a cost of about $15.16 per member per month of the overall cost of the program.

## Comment

Behavioral health services are monitored on a quarterly basis within selected categories of care in order to assure access to appropriate services for RIte Care members. Overall, inpatient and outpatient services have followed a consistent pattern over the period under study and have occurred at a rate that is comparable to national general population benchmarks. However, admission rates with a primary diagnosis of drug abuse are considerably higher in RIte Care than in national estimates. This may be due to the fact that males between the ages of 25-44 are under-represented in the RIte Care program although they constitute the group most likely to be hospitalized for alcohol abuse. In addition, residential (day/night treatment) utilization has increased in recent years which may indicate a trend toward more cost effective treatment for cases that do not require inpatient admissions.

Utilization of outpatient services among the adult population is comparable to national benchmarks, although utilization among children is somewhat lower than national general population estimates. Methadone maintenance services are provided at a rate and duration which is consistent with treatment standards, but outpatient services for alcohol and other drugs appear to be underutilized. Mental health and substance abuse services constitute 8.3% of overall RIte Care expenditures, a little over half of which is provided as an out-of-plan benefit to a relatively small group of members. As such, continued monitoring is necessary to assure that RIte Care members are gaining access to the appropriate types of treatment.

## References


1. Mental Health: A Report of the Surgeon General– Executive Summary, Rockville, MD: U.S. Department of Health and Human Services, Substance Abuse and Mental Health Services Administration, Center for Mental Health Services, National Institutes of Health, National Institutes of Mental Health, 1999.
2. Schnider EC, Zaslavsky AM, Epstein AM. Racial disparities in the quality of care for enrollees in Medicare managed care. JAMA. 2002; 287:1288-1294.
3. Goodman E, Huang B. Socioeconomic status, depression, and health services utilization among adolescent women. Women's Health Issues. 2001; 11(5): 416-426.
4. Sobel AB, Roberts MC, Rayfield AD, Barnard MU, Rapoff MA. Evaluating outpatient pediatric psychology services in a primary care setting. J Ped Psych. 2001; 26(7): 395-405
5. Barrett JE, et. al. Treatment of dysthimia and minor depression in primary care. A randomized trial in patients aged 18-59 years. J Fam Pract 2001; 50(5): 405-412.
6. Zelkowitz P, Milet TH. The course of postpartum psychiatric disorders in women and their partners. J Nerv Ment Dis. 2001; 189(9): 575-582.
7. Eberhardt MS, Ingram DD, Makuc DM, et al. Urban and Rural Health Chartbook. Health, United States, 2001. Hyattsville, Maryland. National Center for Health Statistics. 2001, p. 287-288.
8. Treatment admissions for alcohol abuse, alone and with a drug problem. Office of Applied Studies, Substance Abuse and Mental Health Services Administration (SAMHSA). The DASIS Report. Rockville MD. February 2002.
9. Substance Abuse and Mental Health Administration, Office of Applied Studies. Treatment Episode Data Set (TEDS): 1994-1999. National admissions to substance abuse treatment services, DASIS Series: S-14, DHHS Publication No. (SMA) 01-3550, Rockville MD, 2001.
10. Horvitz-Lennon M, Normand SLT, Gaccione P, Frank RG. Partial versus full hospitalization for adults in psychiatric distress: a systematic review of the published literature (1957-1997). Am J Psychiatry 2001; 158:676-685.
11. Spady DW, Schopflocher DP, Svenson LD, Thompson AH. Prevalence of mental disorders in children living in Alberta, Canada, as determined from physician billing data. Arch Pediatr Adolesc Med. 2001;155:1153-1159.
12. Managed Care Business Design: Encounter data business design: Cranston RI, Department of Human Services: 1996.


## Program Description

RIte Care is the State of Rhode Island's managed health care program for families on Medicaid, uninsured families with incomes up to 185% of the Federal Poverty Level (FPL), uninsured pregnant women and children under 19 from families with incomes up to 250% of the FPL. Eligible individuals are enrolled in a managed care organization (Health Plan) which is paid a monthly capitation for providing or arranging health services for members. The program was designed to improve access to health care by providing each member with a 'medical home' in the form of a primary care provider (PCP).

A comprehensive plan for evaluating RIte Care has been implemented by the Center for Child and Family Health. Health Plans are required to submit data to the State on all services provided to members each quarter. These files are edited extensively according to predetermined criteria[12] and become the foundation for most oversight activities. In addition, data are periodically validated against claims and medical records. Other evaluation activities include an annual member satisfaction survey, on-site review of Health Plan policies and procedures, selected focus groups, and a variety of health outcomes research.

**RIte Stats** is a bimonthly publication of the Center for Child and Family Health and is intended to provide information to the public on the health care provided in the RIte Care Program. It is edited by Bill McQuade, MPH with support from the Center for Child Health staff. Comments and inquiries are encouraged and should be sent to: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